

19th & 20th November 2002 Sir Francis Drake Hotel San Francisco, Ca., USA

IN CO-OPERATION WITH CEMENT DISTRIBUTION CONSULTANTS



ECONOMIC SOLUTIONS FOR THE IMPORT AND EXPORT OF BULK AMTERIALS USING MOBILE AND SURFACE MOUNTED EQUIPMENT ELIMINATING FIXED PORT INFRASTRUCTURE

Barry Woodbine
Managing Director
B&W Mechanical handling Ltd.
England

Biography

Barry Woodbine Managing Director B&W Mechanical Handling Ltd. England

Barry Woodbine is Managing Director of B&W Mechanical Handling Ltd. of England serving the Ports and Terminals industry worldwide with their unique range of Mobile Handling and Stacking systems plus the Samson Surface Feeder equipment.

In June 2002 the Aumund Group based in Germany and a well-known and respected name in the cement industry for over 80 years acquired B&W.

Mr. Woodbine joined the family business, as it was, direct from college progressing through the management structure gaining experience in all aspects of the company activities from basic engineering through design, manufacture and commissioning of equipment.

During his 35-year involvement with B&W he has been directly responsible for the design and development of the complete B&W range of products covering all aspects of the materials handling industry.



Economic Bulk Terminals

Minimising Investment with

Total Flexibility



The Aumund Group



Established 1922

Subsidiaries: -

- ➤ Aumund USA (Atlanta)
- **≻**Aumund France
- >Aumund Brazil
- >Aumund India
- >Aumund China
- >Aumund Poland
- >Aumund Switzerland
- >Aumund Contracting
- ▶Premas Switzerland

Manufacturing Units: -

- ➤ Aumund Fördertechnik
- ➤ Louise Germany.
- ➤ Schade Germany.
- ➤B&W England.



Aumund Fördertechnik





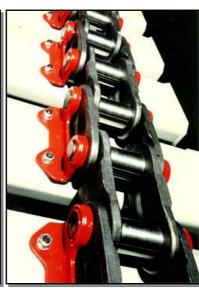
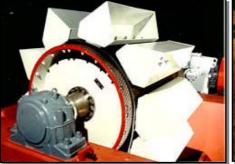


Plate Feeders.

Famous throughout the Cement Industry Worldwide





Bucket Elevators and Pan Conveyors.



Louise







Chain Scraper Conveyors.

Professional Heavy Duty Feeders and Hopper Dischargers





Centrex® and Rotary Silo Dischargers.



Schade







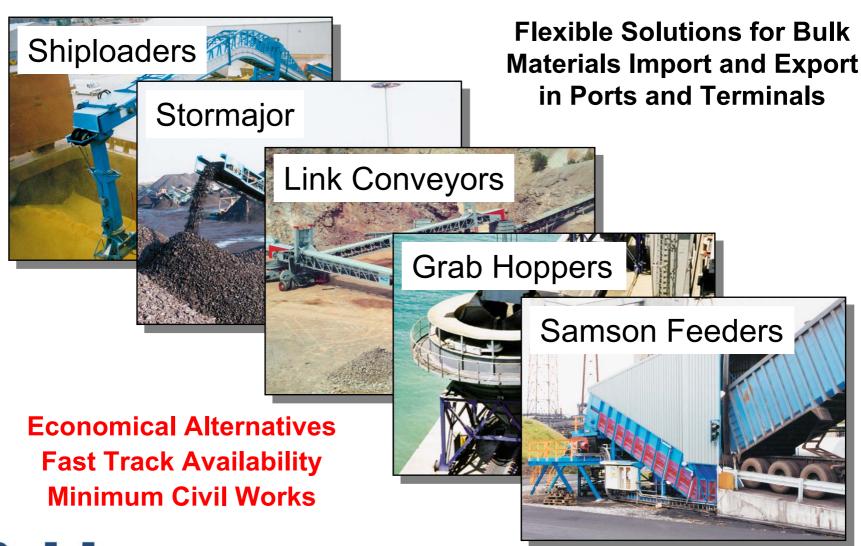
Portal Reclaimers and Stackers.

High Performance Stackers and Reclaimers for Heavy Industry and the Largest Bulk Terminals





B&W Mechanical Handling Ltd





B&W History – Located in England



Historic Ely Cathedral

B&W Engineering was formed in 1966 as a partnership between

Tom Brown and Raymond Woodbine hence the name B&W

The partnership traded until 1978 when the limited company B&W Mechanical Handling Ltd as the business started to grow and develop new products.

During the 1980's and 90's the company consolidated its core product range and diversified into many different industries and in particular for Ports and Terminals.

B&W joined the Aumund Group in June 2002



B&W Product Philosophy

Mobility Surface Mounting Minimum Capital Cost

Maximum Flexibility

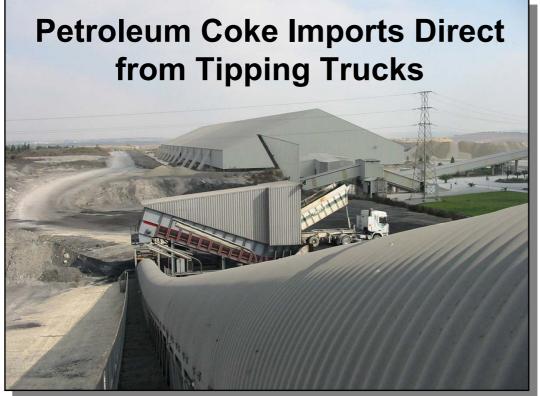
Minimum Civil Works

Fast Track Availability

Minimum Operating Cost



The Samson Surface Feeder



Material received by the Samson and transferred to local storage



- ➤ Surface Mounting.
- ➤ No Expensive Excavation.
- ➤ Flexibility in Location.
- ➤ Easily Relocated.
- ➤ Minimum Dust Generation.
- ➤ Easy Maintenance Access.
- ➤ Reduced Energy Demand.
- ➤ A Flexible Investment.

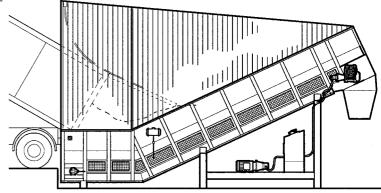


Surface Installation





Surface installation eliminates underground pits and hoppers with complete flexibility in location and relocation

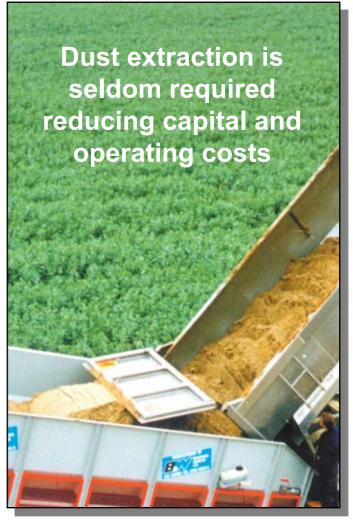




Cost Saving with Environmental Benefits



Material flows from the truck in a controlled stream avoiding dust generation at source





The Stormajor Radial Stacker



Combining a Samson Feeder with a Radial Stacking Boom mounted to a mobile chassis



- > Receives Direct from Trucks.
- ➤ Fully Mobile
- ➤ No Fixed Equipment.
- ➤ High Performance.
- ➤ Huge Stockpile Capacity.
- ➤ Compact.
- >Autonomous.
- Flexible and Economical.



The Stormajor Barge Loading





Barge Loading direct from trucks with no permanent infrastructure or civil works





The Stormajor Rail Wagon Loading





The Stormajor provides a mobile solution for rail wagon loading direct from road trucks





Mobile Shiploaders



Mobile Shiploaders operate on a simple flat quay area without fixed port infrastructure leaving the berth clear after loading



- Receive Direct from Trucks.
- ➤ Fully Mobile
- ➤ No Fixed Equipment.
- ➤ High Performance.
- ➤ High Loading Rates.
- ➤ Viable for Short Contracts.
- >Autonomous.
- Flexible and Economical.



Cement Clinker Exports



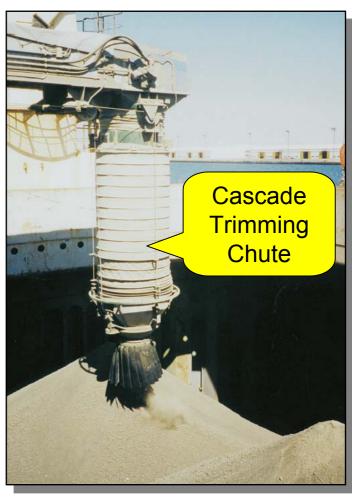
Clinker Exports direct from Trucks or Loading Shovels



Dust Controlled Clinker Handling



Dust Control including a Cascade
Trimming Chute for minimum
environmental pollution





Sterling Series Mobile Shiploader





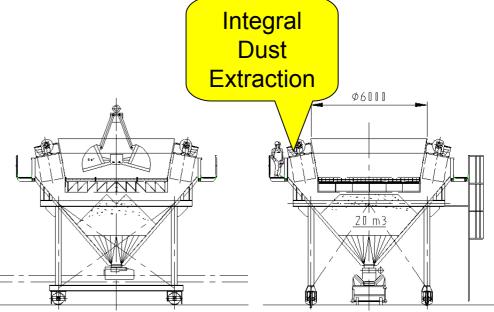
For vessels to Panamax size and loading rates to 2,000 t.p.h. retaining complete mobility





Dust Controlled Imports





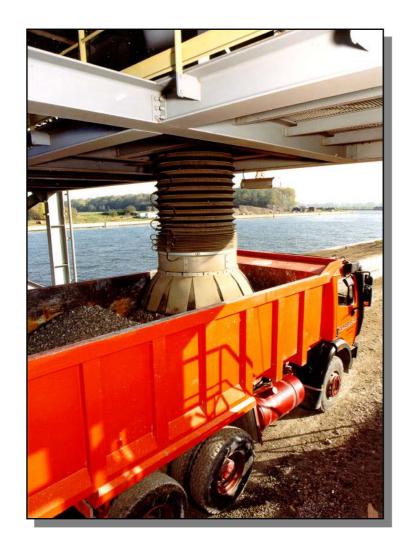
Ship Unloading by Grabs with

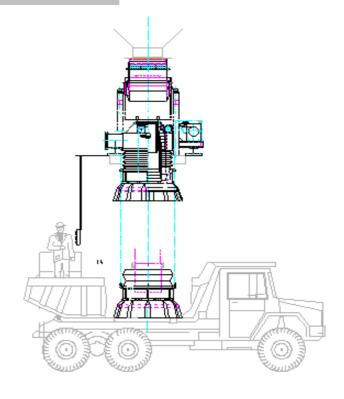
Dust Controlled Hoppers offer an
economical and environmentally
acceptable solution for

All Bulk Materials



Dust Controlled Truck Loading Spouts





Combined with a Grab Hopper providing maximum environmental protection



Link Conveyors



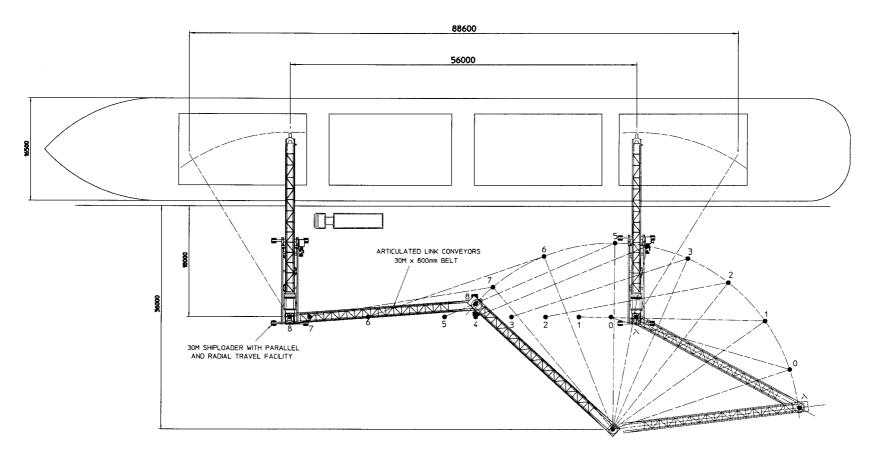
Flexible Connection between Mobile Equipment and Fixed Conveyor plant



- ➤ Alternative to Fixed Conveyors.
- ➤ Fully Mobile.
- ➤ Flexible in Operation.
- ➤ Reduced Capital Cost.
- ➤ Reduced Operating Cost.
- ➤ No Truck Haulage.
- ➤ Easily Relocated.



Link Conveyors in Ports



Link Conveyors transfer material from a fixed conveyor system to a Mobile Shiploader



Equipment Combinations

Mobile Equipment offers the flexibility of multiple use: -

- ➤ Mobile Shiploaders may be combined with Mobile Samson Feeders.
- ➤ Samson Feeders + Link Conveyors used to feed a Shiploader.
- ➤ Grab Hopper + Link Conveyors used to transfer material to storage.
- ➤ Grab Hopper + Truck Haulage to a Stormajor for Ground Stockpiles.
- ➤ Grab Hopper + Truck Haulage to a Samson with Fixed Storage.
- ➤ Fixed Storage + Link Conveyors used to feed a Shiploader.

Multiple combinations of equipment provide total flexibility in both Import and Export schemes allowing maximum machine utilisation for many different duties...



Premas = Preventive Maintenance Service

A service available to all Aumund Group customers worldwide and "Free of Charge"...!!!

- ➤ Regular Inspections by Trained Engineers.
- ➤ Machine Condition Reports.
- ➤ Advice on Planned Maintenance.

Preventive Maintenance Saves Cost and Downtime...!!!



Thankyou for Listening

